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## ABSTRACT

The evaluation of a behavioral screening procedure for the detection of both conduct disordered and withdrawn children was implemented in two phases among children enrolled in a rural Head Start program. The first phase focused on preliminary identification, through teacher rankings and classroom observation, of a population of the most withdrawn and the most conduct disordered children within individual preschool classrooms. The second phase involved standardized classroom observations of identified children by trained observers. Different behaviors were targeted for each group of children, either conduct disordered or withdrawn. Children who exhibited the highest frequencies of maladaptive behaviors were selected to participate in a group social skills intervention program. Three groups were selected, two conduct disordered and one withdrawn. Each group consisted of five children. A control group of non-referred children from the same classroom was also established. Validation of the screening procedure was carried out during the baseline phase of the social skills program by trained observers who were blind to the purpose of the study and to the nature of the groups. Thirteen sessions of observations of each group were taken during two 10-minute table tasks which involved coloring a picture. Behaviors observed included on-task, out-of-chair, and disruptive activities. Teachers' rankings proved to be the most important component of the screening process. Results, which suggest that the screening procedure successfully discriminated between withdrawn children and conduct disordered children as well as between these children and non-referred controls, are discussed. (Author/RH)

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## Behavioral/Emotional Screening of

Head Start Children

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In a recent review (Zigler & Valentine, 1979) of the history of Project Head Start, Cohen, Solnit and Wohlford (1979) trace the slow and problematic evolution of the psychological services component of the program. They discuss the 1972 legislation (Public Law 94-424) requiring that at least 10% of all enrolled children be identified as handicapped and note the relative inattention to identification of emotional disturbance, although that category was specified in the mandate. They conclude by citing the continuing need for improved methods of "detecting and intervening early in the emotional and developmental difficulties" of disadvantaged children (p. 276).

Within the broad category of childhood emotional disturbance, most empirical approaches to classification have identified two major syndromes, generally referred to as withdrawn and conduct disorder (Achenbach & Edelbrock, 1978). Within the preschool classroom environment, the conduct disorder children will stand out more than the withdrawn children. Indeed, because of their more noxious environmental impact, the detection and referral of conduct disorder children is more frequent (Quay & Werry, 1979). Consequently, the identification of withdrawn children within the same framework of screening to identify

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conduct disordered children poses difficulties. Therefore, the present study was designed to evaluate a behavioral screening procedure for the detection of both conduct disordered and withdrawn children in a rural Head Start program.

The screening procedure was implemented in two phases. The first phase focused on preliminary identification of a population of the most withdrawn and the most conduct disordered children within individual classrooms. Initially, teachers were instructed to observe their students for the following behaviors: instruction compliance, physical aggression, appropriate physical and verbal interaction, and general activity level. One week following the instructions, teachers were asked to list the five most disruptive students and the five most withdrawn students from their classrooms. Two clinical psychology graduate assistants then made subjective classroom observations, focusing on the 10 children listed by the teacher, but also observing other children. The graduate assistants then made clinical judgements to select those children who appeared to be at greatest risk.

The second phase involved standardized classroom observations of those selected children, by trained observers. Each child was observed in the classroom setting twice. Different behaviors were targeted for each group of children, either withdrawn or conduct disordered. For the potentially withdrawn children the following behaviors were targeted: alone on task, alone off task, positive social reaction, negative social reaction, positive social interaction, negative social interaction, positive initiation accepted, and positive initiation rejected. For

the conduct disordered group the behaviors targeted for observation were: out of chair, extended vocalization, noncompliance, physical aggression, verbal aggression, self-stimulation, daydreaming, solicitation of teacher attention, and time off task. (Definitions of these behaviors are available upon request.) Each observation session lasted 20 minutes, utilizing a 15 second observe, 5 second record partial interval procedure. Interrater reliabilities ranged from 74% to 95%, with an average of 86%.

Children who exhibited the highest frequencies of maladaptive behaviors were selected to participate in a group social skills intervention program. Three groups of children were selected, two conduct disordered and one withdrawn group. Five children were selected for each group. Additionally a control group was established which consisted of non-referred children from the same classrooms.

Validation of the screening procedure was carried out during the baseline phase of the group social skills program. Thirteen sessions of observations of each group were taken during two ten minute table tasks, which involved coloring a picture. Trained observers, blind to the purpose of the study and the nature of the groups, conducted the observations from an adjacent observation room, equipped with a one-way mirror and audio hook-up. Behaviors observed included on task, out of chair, and disruptive behavior. Behaviors were observed on a 10 second time sampling schedule. Interrater reliabilities ranged from 68% to 98%, averaging 84%. Each group participated in one ten minute segment that had only one instruction at the onset of the segment, for example "Color

the picture", and one ten minute segment which included ten specific instructions, for example "Color the clown's shoes", spaced 60 seconds apart.

Data from the two conduct disordered groups were combined. Group means for each trial were calculated and preliminary analysis indicated that no significant effect for the number of instructions was found. Therefore, data were collapsed across this factor and a 3(Groups) by 13(Trials) analysis of variance, with repeated measures on the second factor and unequal N, was conducted for each of the three dependent measures.

For all three measures a significant main effect for the Groups factor was found. Additionally a significant Groups by Trials interaction was found for all three measures. These data may best be understood by referring to figures 1, 2, and 3. Planned comparisons revealed that the withdrawn group demonstrated a greater percentage of On Task behavior, as shown in figure 1, than the conduct disordered group, who, in turn, were significantly beyond the control group. Trend analysis of the interaction revealed that both the conduct disordered and control groups decreased the percentage of On Task behavior across trials while the withdrawn group did not. The conduct disordered children demonstrated greater percentages of both out of chair, as shown in figure 2, and disruptive behavior as shown in figure 3, than the control children, who in turn, showed a higher percentage of Out of chair behavior than the withdrawn children. Trend analysis of the interaction.

revealed that only the conduct disordered children steadily increased their percentage of Out of Chair and Disruptive behavior over trials.

The results suggest that the screening procedure successfully discriminated both withdrawn children and conduct disordered children from each other and from non-referred controls. Thus, it is apparent that it is possible to successfully identify both conduct disordered and withdrawn children within the framework of one screening procedure. Additionally, the results suggest that On Task behavior alone is insufficient to differentiate conduct disordered children from the general Head Start population. It is necessary to include, at least, Disruptive behavior.

Several aspects of the results stand out as being worthy of further consideration. First is the fact that the screening procedure, which was conducted totally within individual classrooms, effectively discriminated conduct disordered children and withdrawn children, and that discrimination held up in validity assessments done in an entirely different situation. Additionally, it is notable that children identified from several different classes, exhibited the same behavior patterns in the assessment room. Thus, the screening procedure appears to have tapped behavior patterns that generalize beyond the individual classroom.

Second, the significant Groups by Trials interaction demonstrates that one discriminating factor between control, withdrawn and conduct disordered groups is the behavior rate over time. Over the thirteen trials, the conduct disordered group showed a consistent decline in On Task behavior and a consistent increase in Out of Chair and



6

Disruptive behaviors. Additionally, this decline was greater than for the control group and the withdrawn group showed no decline. It is notable that the short term, relatively static screening procedure discriminated groups that showed differences over time.

Third, it is important to look at the components of the screening procedure to examine the contribution of each component. The most important component was the teacher rankings of their students in the initial step of the screening procedure. Of the ten identified conduct disordered children, four were ranked first, two were ranked second, one was ranked third, two were ranked fourth, and one was not ranked as one of the five most disruptive children in the teacher's classroom. Of the five identified withdrawn children, two were ranked first and one was ranked second, third, and fourth, respectively. Since only one of the fifteen identified children was missed by the teachers' rankings, those rankings proved a valuable aid in the screening process. It may be suggested that initial teacher rankings can effectively reduce the pool of students to be included in the next steps of the screening process. In line with this component analysis concept, additional research is presently being conducted on a modified screening procedure. This procedure is carried out at the same time as a screening battery of cognitive and problem solving measures is administered. Research on the validity and cost efficiency of this procedure is presently being conducted.

One final note regarding the data. It was interesting to note that during the initial phases of the study, the non-referred control

children showed less on task behavior than the conduct disordered children. This anomalous result may be an artifact of the type of rural Head Start program involved in the present study. However, it should be noted that this result did not reach the same level of significance as the other behaviors. It is possible that this variable, On Task behavior, may not discriminate groups when included in a multivariate analysis. In any case, it is evident that the replication will be necessary to more fully understand this result.

In summary, the results suggest several major conclusions. First, the screening procedure effectively discriminated both conduct disordered and withdrawn children from a general Head Start population. Also important is the implication that On Task behavior alone is not sufficient to differentiate conduct disordered children from non-referred controls. A further point is that the screening procedure, conducted entirely within the classroom, was proven valid in a separate setting. Also interesting to note was the fact that there were differences in the trends the groups demonstrated over the thirteen trials. Based on these preliminary data, replications and refinements of the screening procedure are being conducted.



## References

Achenbach, T. M., & Edelbrock, C. S. The classification of child psychopathology: A review and analysis of empirical efforts. Psychological Bulletin, 1978, 85, 1275-1301.

Cohen, D. J., Solnit, A. J., & Wohlford, P. Mental health services in Head Start. In E. Zigler & J. Valentine (Eds.), Project Head Start. New York: Free Press, 1979.

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Table 1. Mean Percentage of Time as a Function of Group and Measured Behavior.

<u>Group</u>	<u>Measured Behavior</u>		
	On Task	Out of Chair	Disruptive
Withdrawn	73.69	.25	.60
Conduct-Disordered	67.63	21.20	20.77
Control	47.54	14.84	3.29

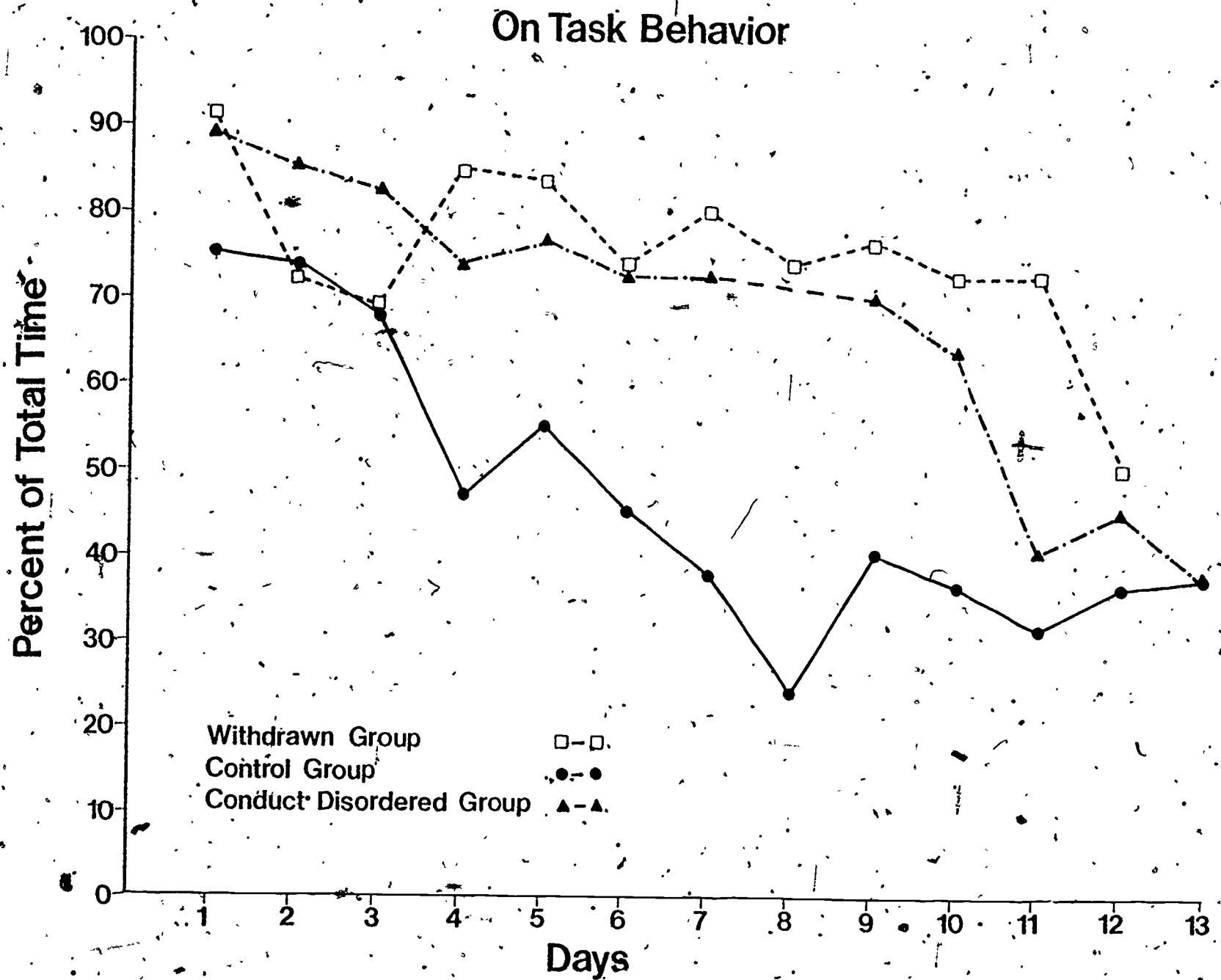


Figure 1. Percent of time on task over days.

## Out of Chair Behavior

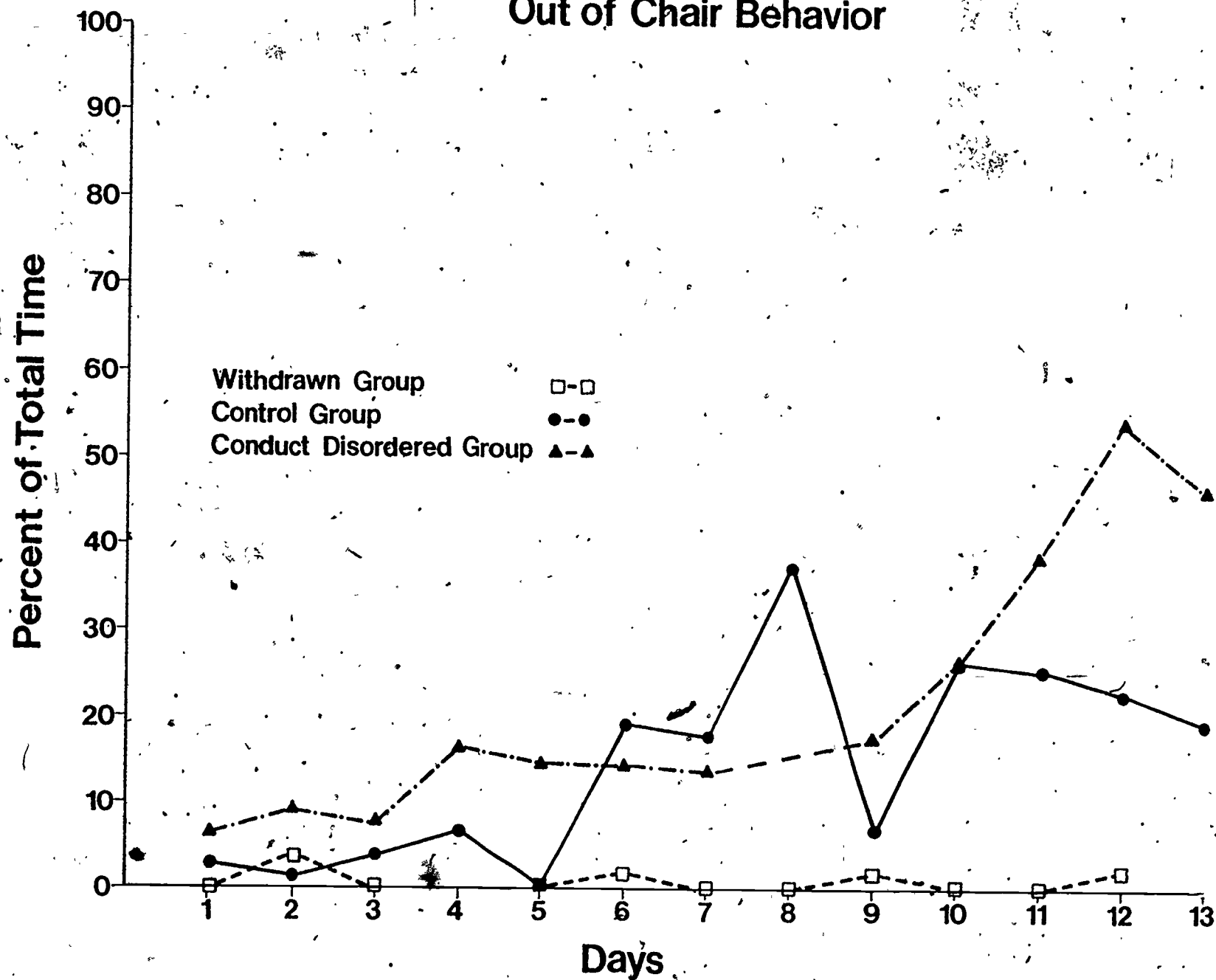


Figure 2. Percent of time out of chair over days.

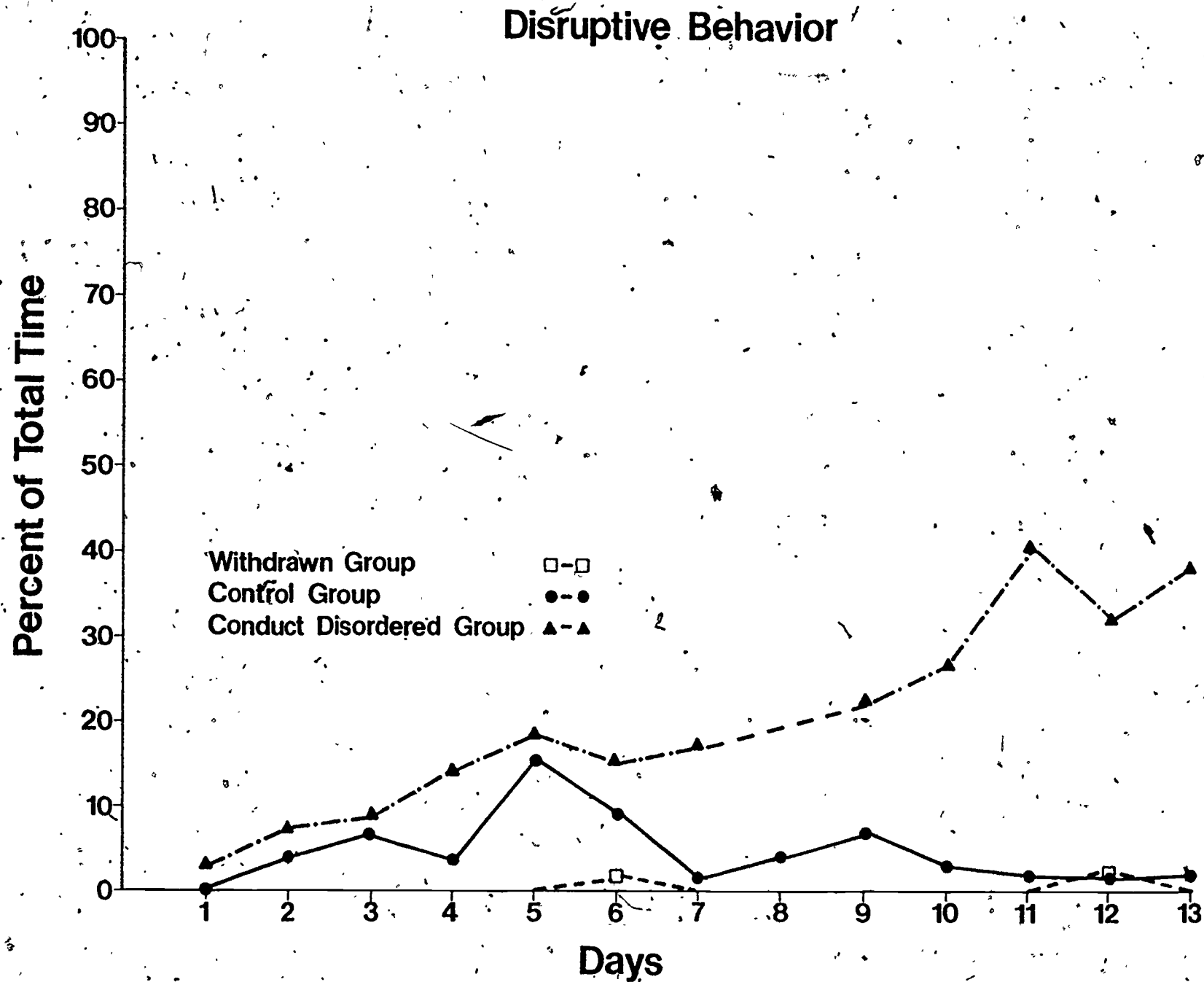


Figure 3. Percent of time engaged in disruptive behavior over days.